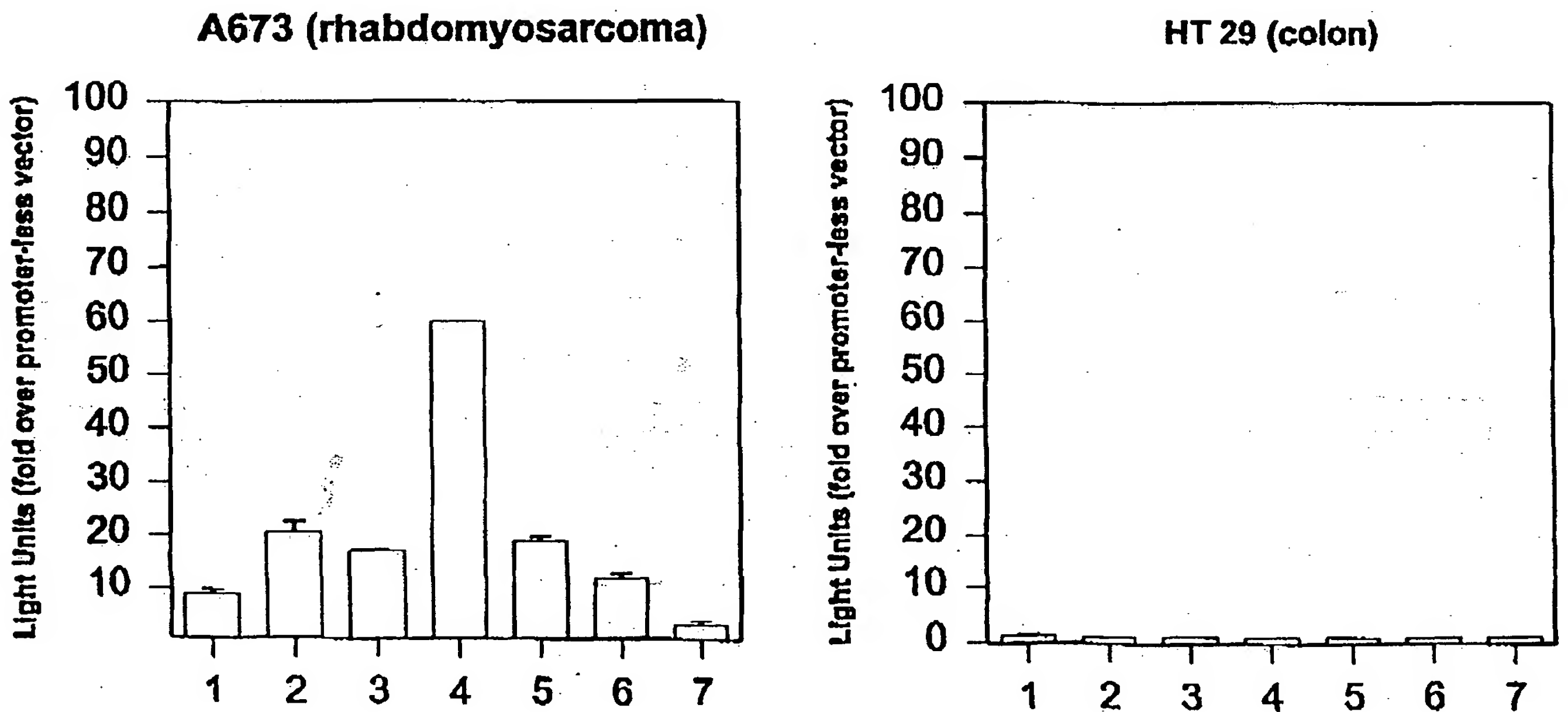
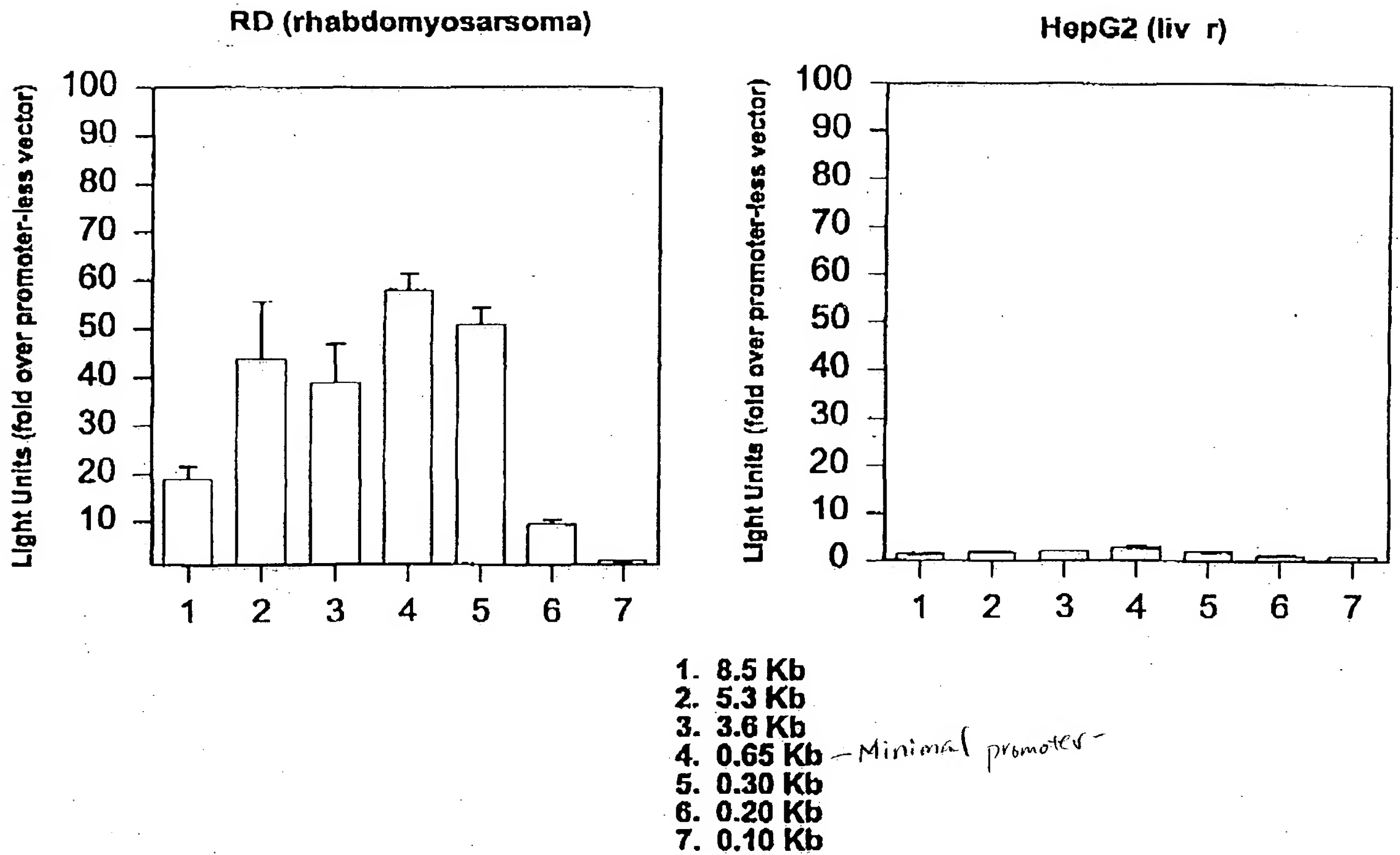


Figure 1A



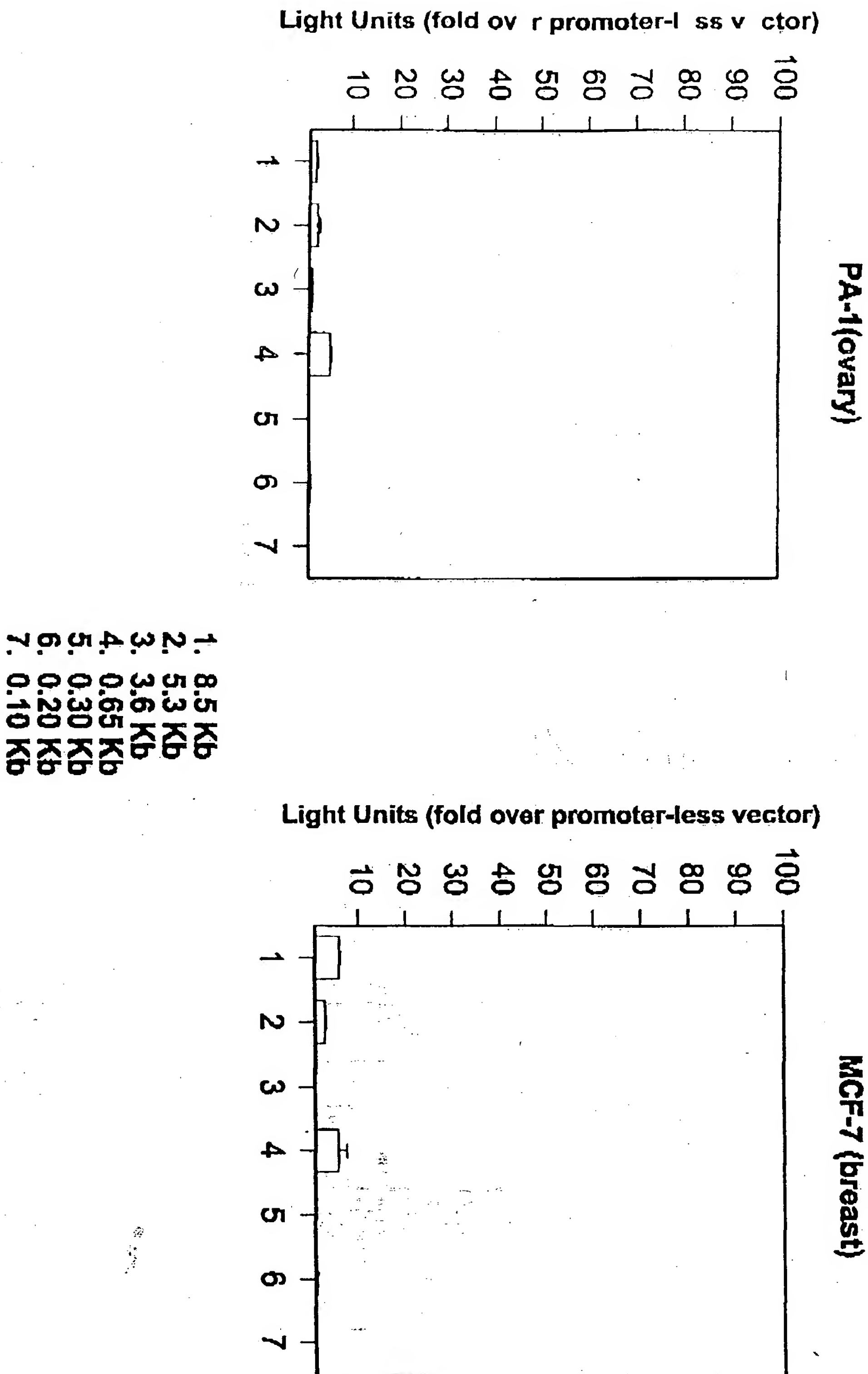
App No.: Not Yet Assigned

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Inventor: Li-fang Liang

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 AND USES THEREFOR

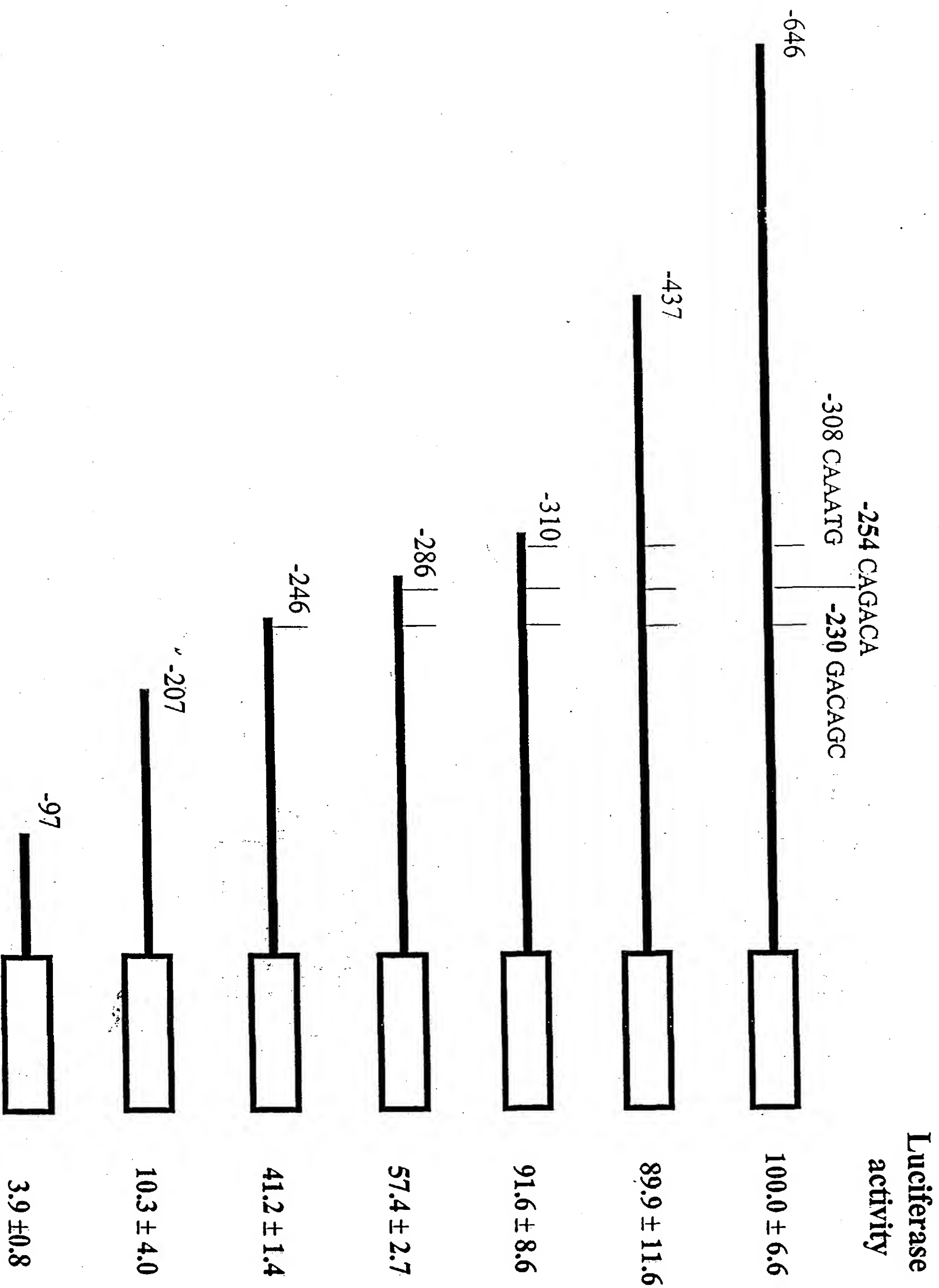
Figure 1B



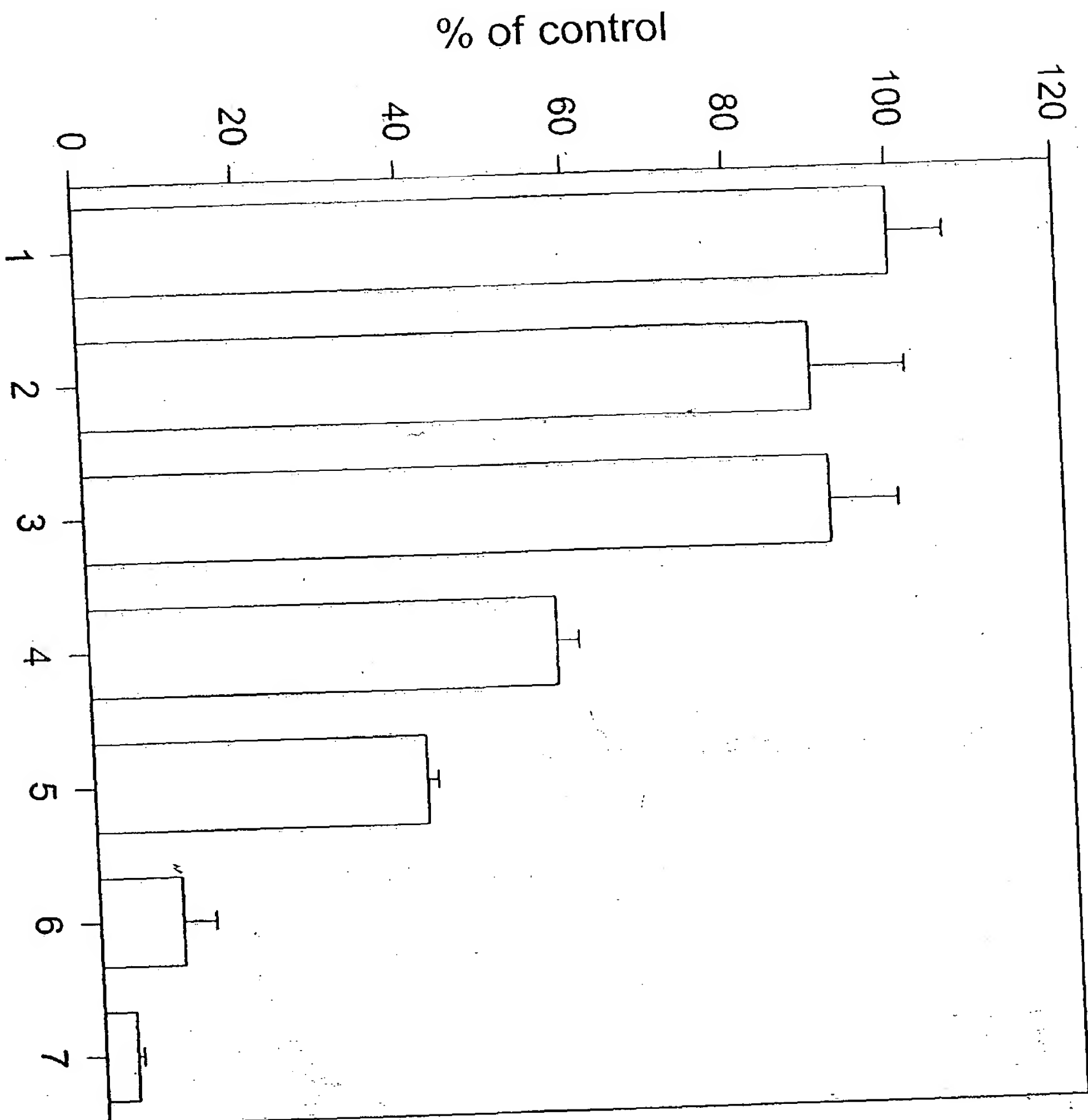
| | | | | |
|------------|------------|------------|------------|-------------|
| ACTAGTATCA | TAATCTTAAC | TTTTAATTCA | GGTCTTCCTA | ATTTTTATTT |
| TGATCATAGT | ATTAGAATTG | AAAATTAAGT | CCAGAAGGAT | TAAAATAAAA |
| TCCTAATTAC | TTGGCACTAA | AAATAATTTA | ATACAACAAA | TAAAAATATT |
| AFFATTAATG | AACCGTGATT | TTTATTAAAT | TATGTTGTTT | ATTTTTATAA |
| TTCTACTTCA | AATACTTGCC | TAAACAATAT | AAAATCATTT | TAGTTTTTTGA |
| AAGATGAAGT | TTATGAACGG | ATTTGTTATA | TTTTAGTAAA | ATCAAAAAC |
| - 437 | | | | |
| GGAAGTAATA | TTTCATATTT | TAAATATGTA | GTATAAATTA | AAATTGACTT |
| CCTTCATTAT | AAAGTATAAA | ATTTATACAT | CATATTTAAT | TTTAACTGAA |
| ATTTAAATTA | CAATAAGAGT | TGTGTGAGGA | TTAGTAAGAT | TTAAGTACAG |
| TAAATTTAAT | GTTATTCTCA | ACACACTCCT | AATCATTCTA | AATTCATGTC |
| TTTATATTAT | TGCCAACATA | GACTTTTGTT | TTTCAAATGT | CACAAATATC |
| AAATATAATA | ACGGTTGTAT | CTGAAAACAA | AAAGTTTACA | GTGTTTATAG |
| - 310 | | | | |
| TTTTATTATT | TGTAGATTTA | TTTCTTTTAT | GAAGTAGTCA | AATGAATCAG |
| AAAATAATAA | ACATCTAAAT | AAAGAAAATA | CTTCATCAGT | TTACTTAGTC |
| - 286 | | | | |
| CTCACCCCTG | ACTGTAACAA | AATACTGCTT | GGTGACTTGG | GACAGACAGG |
| GAGTGGGAAC | TGACATTGTT | TTATGACGAA | CCACTGAACC | CTGTCTGTCC |
| - 246 | | | | |
| GTTTTAACCT | CTGACAGCGA | GATTCATTGT | GGAGCAAGAG | CCAATCATAG |
| CAAAATTGGA | GACTGTCGCT | CTAAGTAACA | CCTCGTTCTC | GGTTAGTATC |
| ATCCTGACGA | CACTTGTCTC | ATCTAAGTTG | GAATATAAAA | AGCCACTTGG |
| TAGGACTGCT | GTGAACAGAG | TAGATTCAAC | CTTATATTTT | TCGGTGAACC |
| AATACAGTAT | AAAAGATTCA | CTGGTGTGGC | AAGTTGTCTC | TCAGACTGTA |
| TTATGTCATA | TTTTCTAAGT | GACCACACCG | TTCAACAGAG | AGTCTGACAT |
| - 95 | | | | |
| CATGCATTAA | AATTTTGCTT | GGCATTACTC | AAAAGCAAAA | GAAAAGTAAA |
| GTACGTAATT | TTAAAACGAA | CCGTAATGAG | TTTTCGTTTT | CTTTTCATTT |
| + 1 | | | | |
| AGGAAGAAAC | AAGAACAAGA | AAAAAGATTA | TATTGATTTT | AAAATCATG |
| TCCTTCTTTG | TTCTTGTTCT | TTTTTCTAAT | ATAACTAAAA | TTTTAGTAC |

Figure 2

Figure 3A



pGL3 luciferase vectors in RD cells



1. pGL3-0.65 (control)
2. pGL3-0.44
3. pGL3-0.31
4. pGL3-0.29
5. pGL3-0.25
6. pGL3-0.21
7. pGL3-0.10

Figure 3B

092398b

Figure 4A

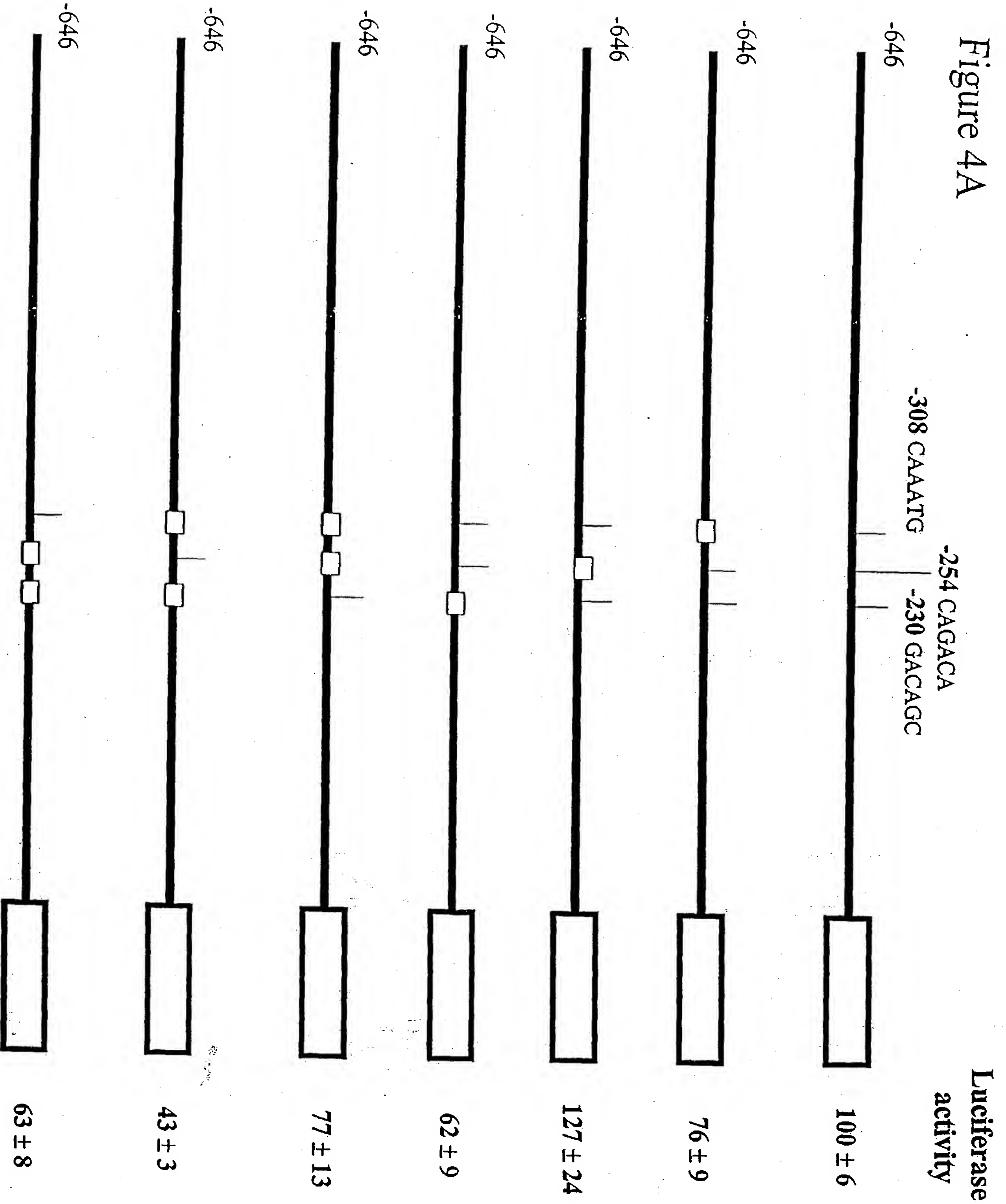
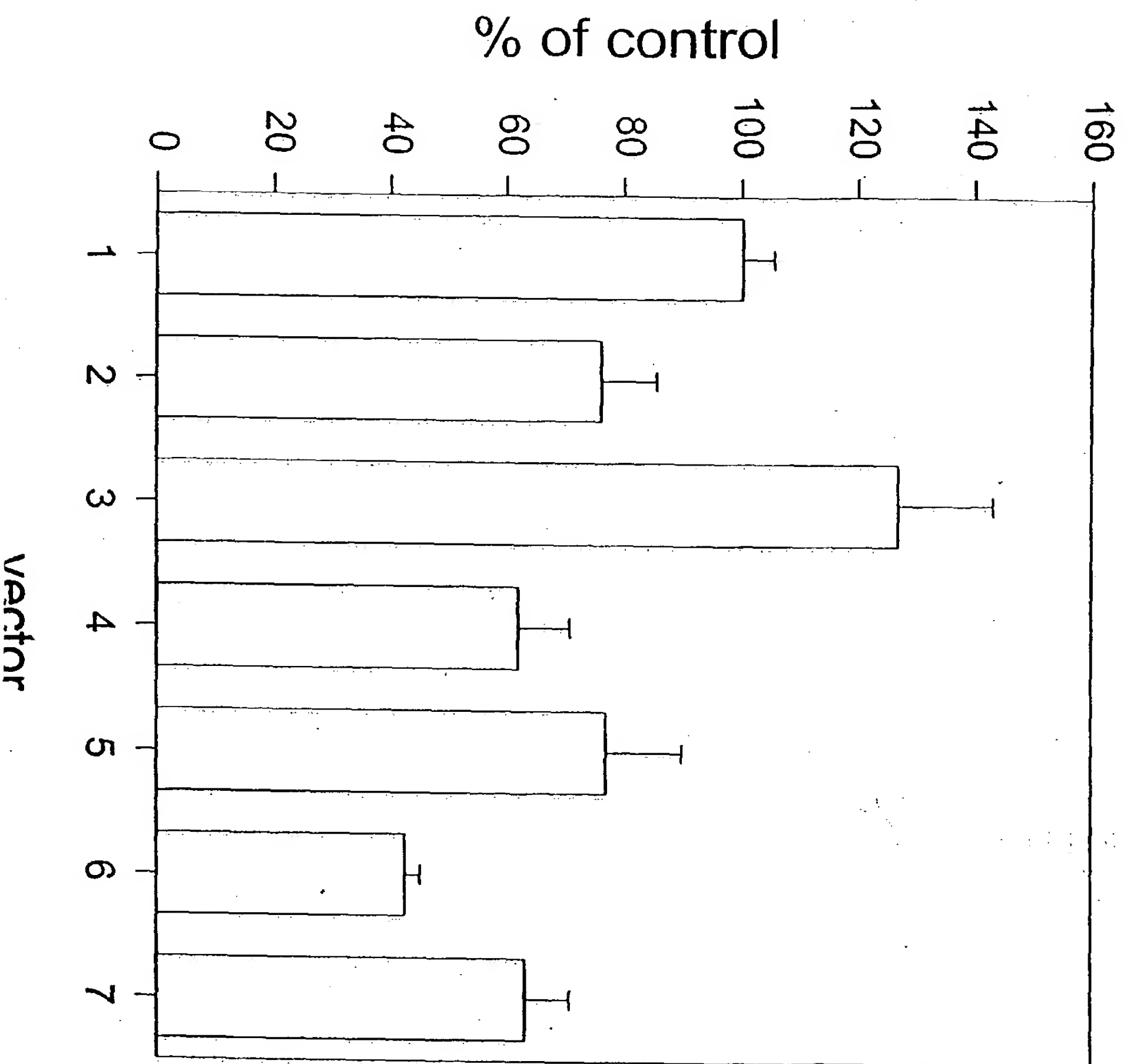


Figure 4B

Composite graph of all the transfection data to date of RD cells transfected with various mutated GDF-8 reporter constructs



1. pGL3-0.65 (control)
2. pGL3-0.65 mut1
3. pGL3-0.65 mut2
4. pGL3-0.65 mut3
5. pGL3-0.65 mut1,2
6. pGL3-0.65 mut1,3
7. pGL3-0.65 mut2,3

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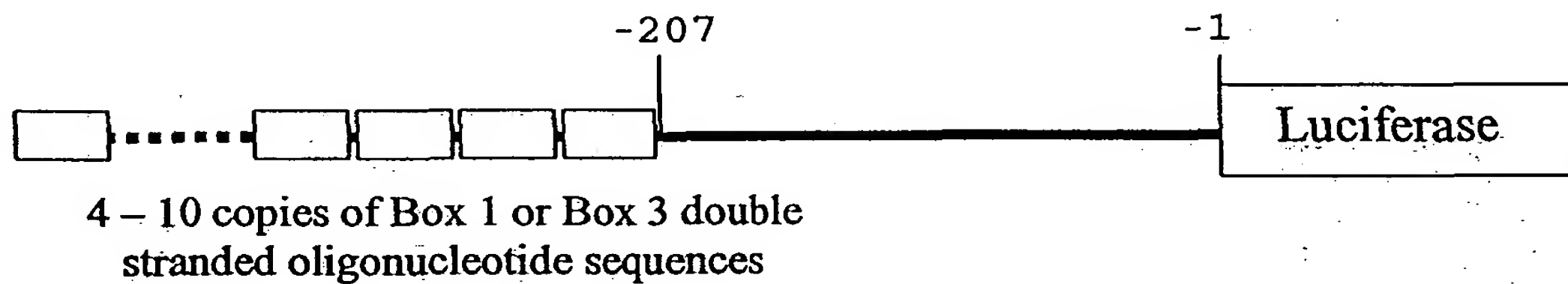
Figure 5A

Box 1 sequence (CAAATG)

GAGCTTTCTTTTATGAAGTAGTCAAATGAATCAGCTCACCTTG
AAAGAAAATACTTCATCAGTTTACTTAGTCGAGTGGGAACCTCG

Box 3 sequence (GACAGC)

GAGCGTTTAAACCTCTGACAGCGAGATTCATTGTGGAGCAAGAG
CAAAATTGGAGACTGTCGCTCTAAGTAACACCTCGTTCTCCTCG



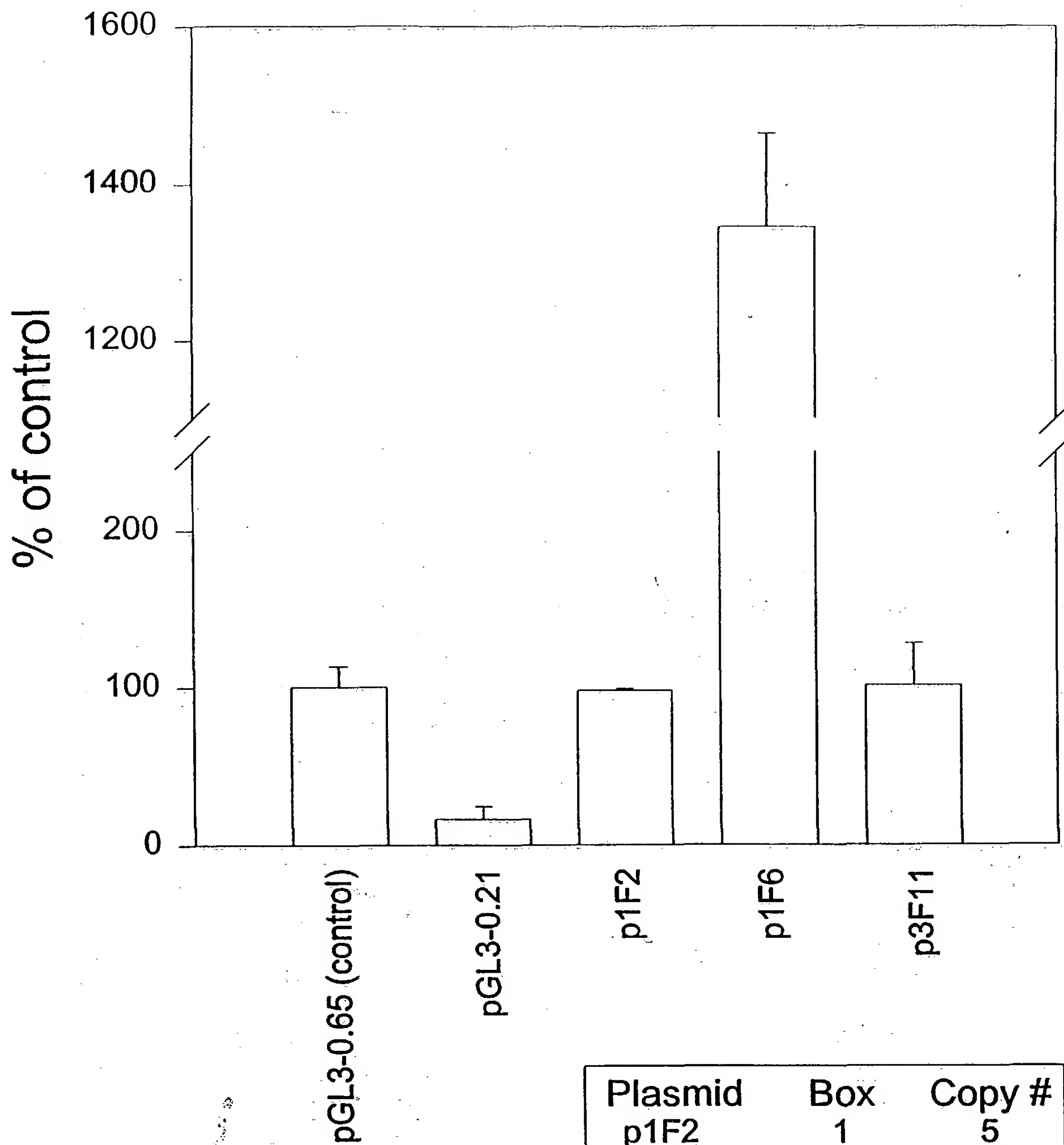
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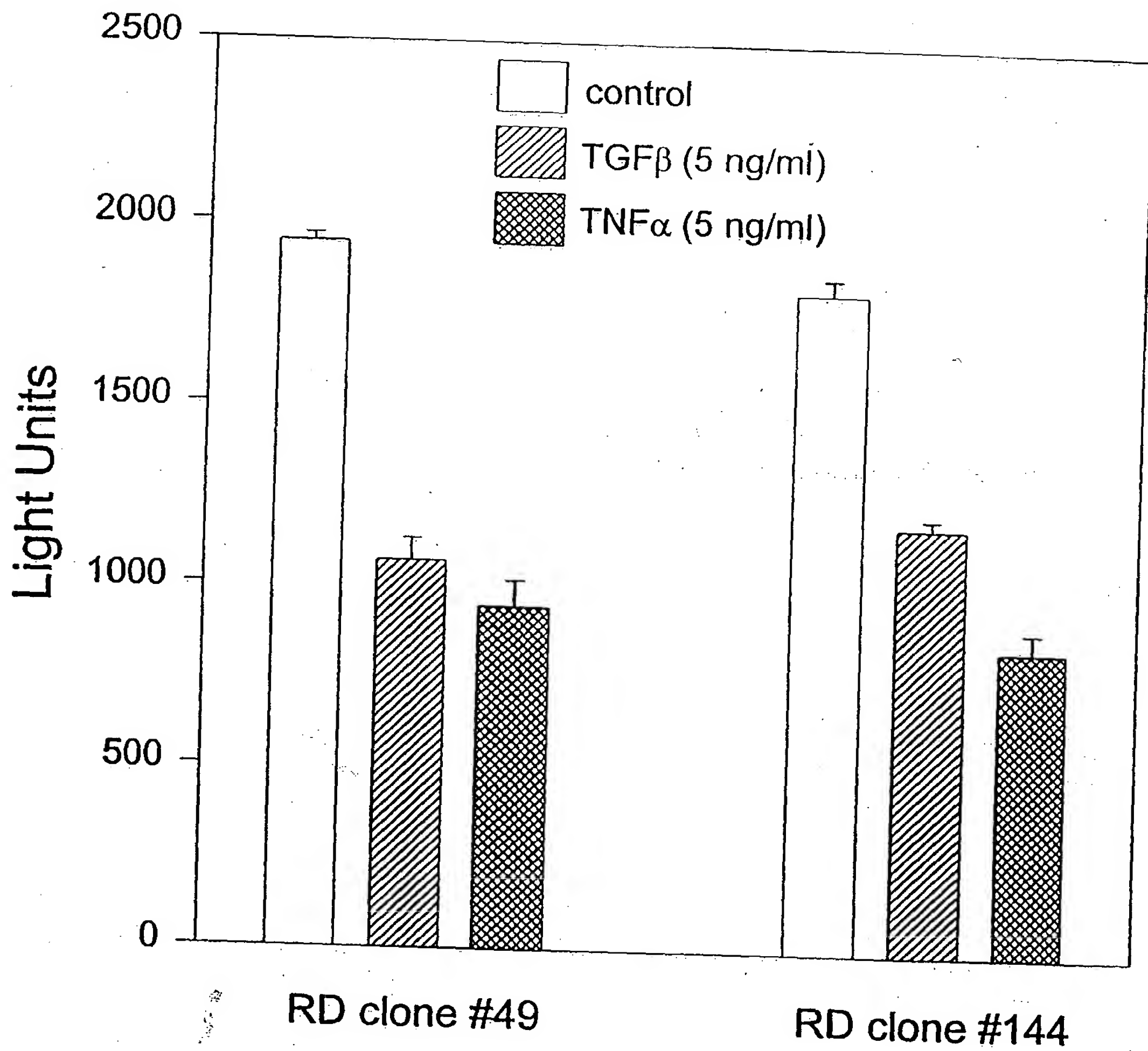
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Figure 5B



| Plasmid | Box | Copy # |
|---------|-----|--------|
| p1F2 | 1 | 5 |
| p1F6 | 1 | 10 |
| p3F11 | 3 | 4 |

Figure 6



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10 20 30 40 50 60
 GTACAGTTTATATTAGTACACAGACTTCAATTTATCAAATGTCACATATATCTTTCATGA
 CATGTCAAATATAATCATGTGTCTGAAGTTAAATAGTTTACAGTGTATATAGAAAGTACT

 70 80 90 100 110 120
 TTTGGGGATTTATTTTCAATTTATGAAGTAGTCAAATGAATCAGCTTGCCCTCGACTGTAAC
 AAACCCCTAAATAAAGTAAATACTTCATCAGTTTACTTAGTCGAACGGGAGCTGACATTG

 130 140 150 160 170 180
 AAAATACTGCTTGGTGACTTGTGACAGACAGGGTTTAACTCTGACAGCGAGATTCATT
 TTTTATGACGAACCACTGAACACTGTCTGTCCCAAATTTGGAGACTGTCGCTCTAAGTAA

 190 200 210 220 230 240
 GTGGAGCAGGAGCCAATCATAGATCCTGACGACACTTGTCTCCTCTAAGTTGGAATATAA
 CACCTCGTCCTCGGTTAGTATCTAGGACTGCTGTGAACAGAGGAGATTCAACCTTATATT

 250 260 270 280 290 300
 AAAGCCACTTGGAATACAGTATACAGGACTCCCTGGCGTGGCAGGTTGTCTCTCGGACGG
 TTTCGGTGAACCTTATGTCATATGTCCTGAGGGACCGCACCGTCCAACAGAGAGCCTGCC

 310 320 330 340 350 360
 TACATGCACTAATATTTCACTTGGCATTACTCAAAAGCAAAAAGAAGAAATAAGAACAAG
 ATGTACGTGATTATAAAGTGAACCGTAATGAGTTTTCGTTTTCTTCTTTATTCTTGTTTC

 370 380 390
 GGAAAAAAAAGATTGTGCTGATTTTTTAAAATGATG
 CCTTTTTTTTTCTAACACGACTAAAAATTTTACTAC

Figure 7A

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10 20 30 40 50 60
 TTCGGTATNTAATTTGCTGCCAGGATTTNGNTGACAAAGGCAAACCTGGNTTAANTTAAT
 AAGCCATANATTAAACGACGGGTCCTAAANCNACTGTTTCCGTTTGACCNAATTNAATTA
 70 80 90 100 110 120
 AGGGTCCACACTTCAGTAATGAATTTTGATANTAAAGGTCCCAATAGTTAGCANTTATAG
 TCCCAGGTGTGAAGTCATTACTTAAACTATNATTTCCAGGGTTATCAATCGTNAATATC
 130 140 150 160 170 180
 TCACACGTGAACAAAATGTTTATTGNTGNACNTAGNACNTATCAGGAAAACCTATCAT
 AGTGTGCACTTGTTTTACAAATAAGNACNANTGNATCNTGNATAGTCCTTTTGGATAGTA
 190 200 210 220 230 240
 GATTTTCTGAAATCTGAGCTGCTTAATGCACGTGAACTGTTGAACAGCATGGATTCCTCG
 CTAAAAGACTTTAGACTCGACGAATTACGTGCACTTGACAACCTTGTCGTACCTAAGGAGC
 250 260 270 280 290 300
 TGTTTGCAATGTATTTATAATGTATTTTTCCTCCTAACAGAAATCCCTCAGAA
 ACAAACGTTACATAAATATTACATAAAAAAAGGGGAGGAGGATTGTCTTTAGGGAGTCTT
 310 320 330 340 350 360
 TTTTCCTTGAGGTAGTACAAACTTTCAGCCACAATAGTGATAGAATCCTAAAGGAACCCCT
 AAAAGGAACCTCCATCATGTTTGAAAGTCGGTGTTATCACTATCTTAGGATTTCCCTGGGA
 370 380 390 400 410 420
 AAAAGAGAGCTCTGCCTCAATTCATAGTCCAACCTATGCGTTCAGTGTATATTTAAGAATG
 TTTTCTCTCGAGACGGAGTTAAGTATCAGGTTGATACGCAAGTCACATATAAATTCTTAC
 430 440 450 460 470 480
 ATAGTGCTGTCTTCCAGCACTGCTGCCCATAGTACTTGGAATATATCCTTTCAGTATGT
 TATCACGACAGAAGGTGCTGACGACGGGTATCATGAACCTTTATATAGGAAAGTCATACA
 490 500 510 520 530 540
 GAAGACGTATCCTTTACGAAGCCACCATATAAATCAGTTCACCCTTGGCTGTAACCAAAT
 CTTCTGCATAGGAAATGCTTCGGTGGTATATTTAGTCAAGTGGGAACCGACATTGGTTTA
 550 560 570 580 590 600
 GCTGTCTAGTGACTTGTGATCGACAGGGCTTTAACCTCTGACAGCTAGATTTCATTGTTGG
 CGACAGATCACTGAACACTAGCTGTCCCGAAATTGGAGACTGTCGATCTAAGTAACAACC
 610 620 630 640 650 660
 GACAACAACCAATCGTCGGTTTTGACGACATGAGCCTAATCAAAGTTGGAGTATAAAAGC
 CTGTTGTTGGTTAGCAGCCAAAACCTGCTGTACTCGGATTAGTTTCAACCTCATATTTTCG
 670 680 690 700 710 720
 CCCCTTGGCATATATAAGGCACACCAGTGTGGCAAGCCGTCTCTCAGATTGCATTTGCTG
 GGGGAACCGTATATATTCGGTGTGGTCACACCGTTCGGCAGAGAGTCTAACGTAAACGAC
 730 740 750 760 770 780
 TCACGGATCTGTTTAGAACTGAAAGAAAAGGGGAAAGGGAGAGGGGGGAAAAAAGGGCAA
 AGTGCCTAGACAAATCTTGACTTTCCTTTTCCCTTTCCTCTCCCCCTTTTTTCCCGTT
 790
 AAAGCTGCAGTGAAGTAA
 TTTCGACGTCAGTGAAGTAA

Figure 7B

Figure 8

| | |
|---------|--|
| Human | GAAGTAGTCAAAATGAATCAGCTCAGCGTTGAGTGTAAAGAAAATACCTCTGGGTG |
| Mouse | GAAGTAGTCAAAATGAATCAGCTTGCCTCCAGTGTAAAGAAAATACCTCTGGGTG |
| Pig | GAAGTAGTCAAAATGAATCAGCTCAGCGTTGAGTGTAAAGAAAATACCTCTGGGTG |
| Chicken | GAAGCCACCATATAAATCAGTTCAGCGTTGCGTGTAAACCAAAATGCTGTCTAGTG |

| | |
|---------|--|
| Human | ACTTGGCAAGACACAGCGCTTTAAACCTGTGACAGCBAGATTGATTCT-CCAGCGAA |
| Mouse | ACTTGTGAAAGACACAGCGCTTTAAACCTGTGACAGCBAGATTGATTCT-CCAGCGAG |
| Pig | ACTTGTGAAAGACACAGCGCTTTAAACCTGTGACAGCBAGATTGATTCT-CCAGCGAA |
| Chicken | ACTTGTGATCGAGACAGCGCTTTAAACCTGTGACAGCBAGATTGATTCTTCCGAGAA |

| | |
|---------|--|
| Human | GAGCCAAATCATAGATCCTGAGGACAGTTGCTCTCATGTAAAGTTGGAATATAA |
| Mouse | GAGCCAAATCATAGATCCTGAGGACAGTTGCTCTCATGTAAAGTTGGAATATAA |
| Pig | GAGCCAAATCATAGATCCTGAGGACAGTTGCTCTCATGTAAAGTTGGAATATAA |
| Chicken | CAACCAATCGTCCGTTTTCAGGACATGAECCTAATCAAAAGTTGCAATATAA |

| | |
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